March 17, 2003

Mr. Thomas Lapsley
American Silicones, Inc.
P. O. Box 90
Garrett, IN 46738-0090

Re: 033-17295
First Administrative Amendment to
FESOP 033-14394-00075

Dear Mr. Lapsley:

American Silicones, Inc. was issued a FESOP on January 2, 2002, for an amphorus silicone dioxide manufacturing operation. A letter requesting an administrative amendment was received on February 28, 2003. The requested changes are related to the following:

(1) Replacement of an existing dust collection system. According to 326 IAC 2-8-10(a)(11), an administrative amendment includes "changes or modifications involving a pollution control project or pollution prevention project as defined in 326 IAC 2-1.1-1 that do not result in an increase in the potential to emit any regulated pollutant greater than the thresholds in 326 IAC 2-1.1-3(d)(1) or a significant change in the method or methods to demonstrate or monitor compliance".

(2) Installation of new dust collectors for industrial hygiene purposes only and correction of certain description errors in the FESOP. The new dust collectors meet the definition of trivial activity under 326 IAC 2-7-1(40)(A)(ii). According to 326 IAC 2-8-10(a)(6), an administrative amendment may be used for a changes that "revises descriptive information where the revision will not trigger a new applicable requirement or violate a permit term".

Pursuant to the provisions of 326 IAC 2-8-10 the permit is hereby administratively amended as follows (~~strikeout~~ to show deletions and **bold** to show additions):

(1) Section A.2 is amended as follows:

(a) One (1) mixing process, identified as Mixing Process #1, including one (1) 2,200 pound raw material silo, one (1) transfer conveyor system, and one (1) mixer, with a maximum production rate of 2,500 pounds per batch (313 pounds per hour), with particulate emissions controlled by a baghouse dust collector identified as BH~~1~~ **2**, exhausting emissions inside the building;

(b) One (1) mixing process, identified as Mixing Process #2, including one (1) 2,200 pound raw material storage silo, one (1) transfer conveyor system, and one (1) mixer, with a maximum production rate of 3,500 pounds per batch (438 pounds per hour), with particulate emissions controlled by a baghouse dust collector identified as BH~~1~~ **2**, exhausting emissions inside the building;

(c) One (1) mixing process, identified as Mixing Process #3, including one (1) 2,200 pound raw material storage silo, one (1) transfer conveyor system, and one (1) mixer, with a maximum production rate of 3,500 pounds per batch (438 pounds per hour), with particulate emissions controlled by a baghouse dust collector identified as BH~~1~~ **2**,

exhausting inside the building; and

(d) One (1) small batch mixing operation, identified as small mixing operation, including five (5) mixing processes, with maximum throughputs of 2,000, 1,000, 500, 200, and 100 pounds per batch, respectively, **that includes a baghouse dust collector installed for industrial hygiene purposes only.**

(2) Subsection A.4 is added and the following subsections are re-numbered:

A.4 Trivial Activities [326 IAC 2-7-1(40)] [326 IAC 2-8-3(c)(3)(l)]

This stationary source also includes the following trivial activities, as defined in 326 IAC 2-7-1(40):

(a) Three (3) dust collectors for industrial hygiene purposes, including the following: one (1) dust collector for the extruder room, one (1) dust collector for the compound room for the small batch mixing operation, and one (1) dust collector for the finishing room.

(3) Facility description in Section D.1 is amended as follows:

(a) One (1) mixing process, identified as Mixing Process #1, including one (1) 2,200 pound raw material silo, one (1) transfer conveyor system, and one (1) mixer, with a maximum production rate of 2,500 pounds per batch (313 pounds per hour), with particulate emissions controlled by a baghouse dust collector identified as BH~~1~~ **2**, exhausting emissions inside the building;

(b) One (1) mixing process, identified as Mixing Process #2, including one (1) 2,200 pound raw material storage silo, one (1) transfer conveyor system, and one (1) mixer, with a maximum production rate of 3,500 pounds per batch (438 pounds per hour), with particulate emissions controlled by a baghouse dust collector identified as BH~~1~~ **2**, exhausting emissions inside the building;

(c) One (1) mixing process, identified as Mixing Process #3, including one (1) 2,200 pound raw material storage silo, one (1) transfer conveyor system, and one (1) mixer, with a maximum production rate of 3,500 pounds per batch (438 pounds per hour), with particulate emissions controlled by a baghouse dust collector identified as BH~~1~~ **2**, exhausting inside the building; and

(d) One (1) small batch mixing operation, identified as small mixing operation, including five (5) mixing processes, with maximum throughputs of 2,000, 1,000, 500, 200, and 100 pounds per batch, respectively, **that includes a baghouse dust collector installed for industrial hygiene purposes only.**

(4) Subsection D.1.3 is amended as follows:

D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and ~~any~~ **the** control device~~s~~ **identified as BH2**.

(5) Subsection D.1.5 is amended as follows:

D.1.5 Particulate Matter (PM)

In order to comply with the limitations of Condition D.1.2, ~~all baghouses for PM control~~ **BH2** shall be in operation at all times when ~~the respective silicone dioxide manufacturing processes~~ mixing process #1, mixing process #2, or mixing process #3 is mixing material or adding filler ~~are in operation~~.

(6) Condition D.1.8 is amended as follows:

(b) take readings of the total static pressure drop across ~~baghouse~~ BH~~1~~ **2**, at least once a week, when any of the mixing and drying processes are in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Madhurima Moulik, at (800) 451-6027, press 0 and ask for Madhurima Moulik or extension 3-0868, or dial (317)233-0868.

Sincerely,

Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
mm
cc: File - Dekalb County
U.S. EPA, Region V
Dekalb County Health Department
Northern Regional Office
Air Compliance Section Inspector - Doyle Houser
Compliance Data Section - Karen Nowak
Administrative and Development
Technical Support and Modeling - Michele Boner

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) and ENHANCED NEW SOURCE REVIEW OFFICE OF AIR QUALITY

American Silicones, Inc.
420 North Taylor Road
Garrett, Indiana 46738

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F033-14394-00075	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: January 2, 2002 Expiration Date: January 2, 2007

1st Administrative Amendment No.: 033-17295	Modified Pages: 2, 4, 5, 25, 26, 27
Issued by:Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:March 17, 2003

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

C.12 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

C.13 Pressure Gauge Specifications

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates an amphorus silicone dioxide manufacturing operation.

Authorized individual:	Tom Lapsley
Source Address:	420 North Taylor Road, Garrett, IN 46738-1846
Mailing Address:	P.O. Box 90, Garrett, IN 46738-0090
SIC Code:	2869
Source Location Status:	Dekalb
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD or Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

one (1) polydimethylsiloxane mixing operation consisting of one (1) 60,000 pound bulk storage silo and:

(a) One (1) mixing process, identified as Mixing Process #1, including one (1) 2,200 pound raw material silo, one (1) transfer conveyor system, and one (1) mixer, with a maximum production rate of 2,500 pounds per batch (313 pounds per hour), with particulate emissions controlled by a baghouse dust collector identified as BH2, exhausting emissions inside the building;

(b) One (1) mixing process, identified as Mixing Process #2, including one (1) 2,200 pound raw material storage silo, one (1) transfer conveyor system, and one (1) mixer, with a maximum production rate of 3,500 pounds per batch (438 pounds per hour), with particulate emissions controlled by a baghouse dust collector identified as BH2, exhausting emissions inside the building;

(c) One (1) mixing process, identified as Mixing Process #3, including one (1) 2,200 pound raw material storage silo, one (1) transfer conveyor system, and one (1) mixer, with a maximum production rate of 3,500 pounds per batch (438 pounds per hour), with particulate emissions controlled by a baghouse dust collector identified as BH2, exhausting inside the building; and

(d) One (1) small batch mixing operation, identified as small mixing operation, including five (5) mixing processes, with maximum throughputs of 2,000, 1,000, 500, 200, and 100 pounds per batch, respectively, that includes a baghouse dust collector installed for industrial hygiene purposes only.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.

(b) Degreasing Operations that do not exceed 145 gallons per 12 months.

(c) Cleaners and solvent characterized as:

(1) having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100°F), or
(2) having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg; or 0.1 psi measured at 20 degrees C (68°F),

the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(d) Closed loop heating and cooling systems.

(e) Paved and unpaved roads and parking lots with public access, and

(f) One (1) laboratory as defined in 326 IAC 2-7-1(20)(C).

A.4 Trivial Activities [326 IAC 2-7-1(40)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following trivial activities, as defined in 326 IAC 2-7-1(40):

(a) Three (3) dust collectors for industrial hygiene purposes, including the following: one (1) dust collector for the extruder room, one (1) dust collector for the compound room for the small batch mixing operation, and one (1) dust collector for the finishing room.

A.5 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

A.6 Prior Permit Conditions

(a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall

immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

one (1) polydimethylsiloxane manufacturing operation consisting of one (1) 60,000 pound bulk storage silo and:

(a) One (1) mixing process, identified as Mixing Process #1, including one (1) 2,200 pound raw material silo, one (1) transfer conveyor system, and one (1) mixer, with a maximum production rate of 2,500 pounds per batch (313 pounds per hour), with particulate emissions controlled by a baghouse dust collector identified as BH2, exhausting emissions inside the building;

(b) One (1) mixing process, identified as Mixing Process #2, including one (1) 2,200 pound raw material storage silo, one (1) transfer conveyor system, and one (1) mixer, with a maximum production rate of 3,500 pounds per batch (438 pounds per hour), with particulate emissions controlled by a baghouse dust collector identified as BH2, exhausting emissions inside the building;

(c) One (1) mixing process, identified as Mixing Process #3, including one (1) 2,200 pound raw material storage silo, one (1) transfer conveyor system, and one (1) mixer, with a maximum production rate of 3,500 pounds per batch (438 pounds per hour), with particulate emissions controlled by a baghouse dust collector identified as BH2, exhausting inside the building; and

(d) One (1) small batch mixing operation, identified as small mixing operation, including five (5) mixing processes, with maximum throughputs of 2,000, 1,000, 500, 200, and 100 pounds per batch, respectively, that includes a baghouse dust collector installed for industrial hygiene purposes only.

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Volatile Organic Compound (VOC) Emissions [326 IAC 8-1-6 and 326 IAC 2-7]

The volatile organic compounds (VOC) from all materials used at Mixing Process 1, Mixing Process 2**,** Mixing Process 3, and the small mixing operation, each, shall be limited to less than or equal to 24.7 tons per twelve (12) consecutive month period, rolled on a monthly basis. Compliance with this limit makes 326 IAC 8-1-6 and 326 IAC 2-7 not applicable.

D.1.2 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations), the allowable particulate matter emission rates from the affected processes of this source shall be limited as follows:

(a) the PM emissions from Mixing Process 1 shall not exceed 1.14 lb/hr,
(b) the PM emissions from Mixing Process 2 shall not exceed 1.49 lb/hr,

(c) the PM emissions from Mixing Process 3 shall not exceed 1.49 lb/hr, and
(d) the PM emissions from the small mixing operation shall not exceed 6.30 lb/hr.

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and the control device identified as BH2.

Compliance Determination Requirements

D.1.4 Volatile Organic Compounds (VOC)

Compliance with the VOC limitations contained in Condition D.1.1 shall be demonstrated by determining the amount of VOCs generated from the materials used at mixing processes 1, 2, and 3, and the small mixing operation, individually, using the following equations:

Individual VOC Emissions (tons/mo) = 0.968 * [individual amount of VOC generating material (tons/mo)]

Combined Total VOC Emissions (tons/mo) = sum [individual VOC generating materials (tons/mo)]

D.1.5 Particulate Matter (PM)

In order to comply with the limitations of Condition D.1.2, BH2 shall be in operation at all times when the mixing process #1, mixing process #2, or mixing process #3 is mixing material or adding filler.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.6 Compliance Monitoring, VOC Limitations

To demonstrate compliance with the limits of Condition D.1.1, the Permittee shall on a monthly basis, record the following for all VOC generating materials used at mixing processes 1, 2, and 3, and the small mixing operation:

(a) the amount of each VOC generating material used each calendar month in pounds per month,

(b) the combined total amount of all VOC generating materials used each calendar month in pounds per month,

(c) the amount of VOC's produced from each VOC generating material used each calendar month in tons per month, as determined utilizing the methods specified in Condition D.1.4, and

(d) the combined total amount of VOC's produced from all VOC generating material used each month in tons per month, as determined utilizing the methods specified in Condition D.1.4.

D.1.7 Compliance Monitoring, Preventive Maintenance Plan

To demonstrate compliance with the requirements of Condition D.1.3, the Permittee shall maintain:

(a) a checklist of the preventive maintenance actions performed, including the dates each preventive maintenance action was performed, and initials after each action verifying that each preventive maintenance action has been performed, and

(b) a log of any additional inspections and preventive measures performed as prescribed in the Preventive Maintenance Plan.

D.1.8 Compliance Monitoring, PM Limitations

To demonstrate compliance with the limitations of Condition D.1.2, the Permittee shall:

(a) perform daily visible emission notations of the baghouse stack exhaust during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed; and

(b) take readings of the total static pressure drop across BH2, at least once a week, when any of the mixing and drying processes are in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.9 Record Keeping Requirements

(a) To document compliance with Condition D.1.1, the Permittee shall maintain the following records:

(1) a monthly log of the parameters required in Condition D.1.6; and
(2) a copy of all purchase orders and/or invoices necessary to verify the type and amount used.

(b) To document compliance with Condition D.1.2, the Permittee shall maintain records of all inlet and outlet differential static pressure readings recorded and all visible observations made, as required in Condition D.1.8.

(c) To document compliance with Condition D.1.3, the Permittee shall maintain records of all preventive maintenance actions performed, as required in Condition D.1.7.

All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.10 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).